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ABSTRACT

This paper identifies the historical factors that played a key role in the rise of mass popular education and describes how these factors relate to education in Southern Africa in the 21st century. The broad overview of developments since the Renaissance begins with the Protestant Reformation, which established a theoretical basis for elementary vernacular education. Subsequent social forces that rivaled religious control of elementary schools are also discussed: the advent of modern science, the rise of nationalism and democracy, the decline of the feudal system, and the Industrial Revolution. The Industrial Revolution gave rise to the idea that global progress and equality could and should be achieved by integrating all nations into industrialized forms of civilization. Because the rise of modern systems of mass popular education is linked to the advent of "developed," industrial civilization, education has also played a role in destroying traditional ways of existence in agricultural societies. This leads to questions about the function of education in developing countries. On one hand, there is concern about uneven developmental patterns in the world and increasing social stratification. On the other hand, cynicism exists as to whether developing countries can integrate meaningfully into an industrial type of civilization. The paper ends with the following questions: (1) Is it imperative for Southern Africa to become integrated into the Western model of development, and if so, what are the implications for education?; (2) Does Southern Africa have the economic base, infrastructure, and developed manpower to sustain accelerated development and what are the implications for educational planning?; (3) How can educational provision be matched with Southern African developmental needs?; (4) How can educational costs be contained while taking Southern Africa's developmental needs and capacity into account?; and (5) What is the function of development aid within the Southern African context? (LMI)

KEY FACTORS IN THE RISE OF MASS POPULAR EDUCATION AND
THEIR RELEVANCE FOR EDUCATION IN SOUTHERN AFRICA IN THE
TWENTY FIRST CENTURY

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Introduction

The present systems of mass popular education in the world cannot be properly understood without a clear knowledge of the historical forces that shaped them. In the not too distant past, formal education in schools was the privilege of a small minority in society. The conception that education is a basic human right is of recent origin. In the distant past schools did not even exist, since primal societies did not have any need for them.

In this paper the concept *mass popular education* refers to the twentieth century trend to provide formal school education to the masses. Most national systems of formal education are directed to and provide for the masses of the population. Although the ideal of universal education (even on the elementary level) has not been attained in all countries, it is generally acknowledged as an ideal. Serious attempts are made by most national states to realise the ideal of universal education (Coombs, 1985:66-86; Husén, 1990:3-8). The purpose of this paper is to point out which historical factors played a key role in the rise of mass popular education and how these factors relate to education in Southern Africa in the twenty first century.

The Renaissance period (which is also the period during which the Protestant Reformation took place) provides a good vantage point for the discussion, since key factors in the rise of mass popular education emerge clearly during this period. During the Middle Ages - the period prior to the Renaissance and the Protestant Reformation - the Roman Catholic Church had a monopoly on education. Medieval schools, however, did not cater for the masses. The European masses were almost completely

illiterate prior to 1300 AD and generally remained that way until the Reformation (1517), although there was some improvement (Parker, 1970:110-111; Mulhern, 1946:430). This discussion will therefore focus on developments since the Renaissance, which ultimately changed this situation drastically.

Since the theme is so comprehensive and covers such a long period of time (approximately five centuries), only a broad overview will be presented while at the same time an attempt will be made to focus on the essence of the matter.

The Protestant Reformation establishes a theoretical basis for universal vernacular education

The Protestant Reformation introduced a new basis for elementary vernacular education, namely, the need for a personal study of the Scriptures in order to ensure salvation. In Protestant theory, the circulation of the vernacular Bible was fundamental and necessary to assist believers in their faith, which was no longer based on church dogma, but on personal belief (Parker, 1970:33-38; Brubacher, 1966:365-366; Van Niekerk, 1991:44). Luther was one of the most ardent supporters of universal elementary education supported by the state. He supported this idea for both religious and civic reasons. Lutheranism promoted the governmental acceptance of the principle of free, universal elementary education, and the laying of the legal basis for such education. However, because the economic constraints were insurmountable, popular instruction in his time was limited to two hours a day. The Reformer, Calvin, was in favour of a church-state partnership in providing education to everyone in

the vernacular. Protestantism in conjunction with the state thus helped to broaden the basis of elementary education (Mulhern, 1946:273-278; Monroe, 1933:410-414; Verster, Van Heerden & Van Zyl, 1982:130).

The Protestant Reformation sparked the Catholic Counter Reformation. Since the Catholic Church soon realised that education could be used effectively in its struggle against Protestantism, many societies that were especially active in education (for example the Jesuit Order) were established. Although these societies helped to bring Catholic education to more people, they did not share the vision of the Reformers, who wanted to expand formal education to the whole population. The religious motive for formally educating the masses during this time is of Protestant origin.

The religious motive of the Reformers for instructing the masses in the rudiments of learning was in itself not enough to produce the universal systems of elementary education of modern nations. During the Reformation, schools were developed on a religious basis and most elementary schools were of this narrow religious type, until the beginning of the nineteenth century. In fact, from 1500 to 1800, the elementary school changed very little. Its curriculum was narrow, its equipment meagre, its teachers poorly equipped for their task and its methods inefficient compared to contemporary standards. The greatest changes took place in the nineteenth century. By this time other social forces of a secular character had developed sufficient strength since the Renaissance to seriously rival the religious control of elementary schools, and by the middle of the nineteenth century, systems of secular schools had been organised in many of the states of Europe and the United States

(Parker, 1970:110, 488; Pollard, 1956:3-11; Mulhern, 1946:250-252,282-283,286-287; Van Heerden, 1988:159-238). It is thus clear that the secularising influences after the Renaissance did not have an immediate impact on education. A clear understanding of these forces is, however, important to comprehend how our present systems of mass popular education evolved, since they ultimately had a tremendous impact on education. The first and foremost of these influences/factors is modern science.

The advent of modern science

The paramount new force to rival the dominant ecclesiastical control of education was natural science. In the seventeenth century, the principle that scientific theories should be based on actual observations and experiments, instead of the statements of ancient (mostly Greek) writers and church sanction, made considerable headway and resulted in many discoveries. Much of this development was in the fields of astronomy and physics, which were greatly aided by new systems of mathematics which the ancient and medieval world did not possess. Examples here are the work of Copernicus (1473-1543), Kepler (1571-1630) and Galileo (1564-1642) in the field of astronomy. During their lifetimes, it was generally believed that the earth was the centre of the universe and the church sanctioned this belief. Copernicus challenged this belief. He showed that the observed movements of the heavenly bodies could best be explained by the hypothesis that the earth and the other planets revolved around the sun. Kepler offered proof of this hypothesis by explaining the motion of the planets by means of three simple mathematical laws. Galileo gave further support to the Copernican theory by new observations of heavenly

bodies revealed by a telescope which he constructed in about 1611. The persecution of Galileo by the church because of his stance is a well-known anecdote in the history of science. Ultimately, however, this attracted attention to his theories and had a secularising influence (Parker, 1970:113).

The new modern scientific method (the inductive verification of hypothesis) that was consequently applied by many scientists, led to many new scientific discoveries that discredited the generally accepted beliefs. Hence long before natural science as an applied science profoundly affected practical everyday life and elementary education, scientific results and the scientific spirit began to influence theories of life and education. The belief that scientific discovery would revolutionise practical affairs and could be used to control nature's forces for human ends gained momentum. The concept of progress based on the application of science was introduced into human thought. This is the meaning of Bacon's (1561-1626) phrase "knowledge is power".

The theories of educational thinkers such as Comenius (1592-1671) and Locke (1632-1704) clearly show that science also had an impact on educational theory. This is quite evident in the "tabula rasa" theory of John Locke who made psychology a phase of natural science and who emphasised sensory perception in education (in opposition to tradition). According to Locke, at birth the human mind can be compared to a blank sheet of paper. According to this view education (through sensory perception) is elevated to a position of paramount importance. In this theory, Locke propounds the idea of progress through education in the same time period as the idea of progress through the application of science

is introduced. Many French Revolutionary thinkers before and after the French Revolution (1789) were proponents of the idea that education should play a vital role in this process.

The whole intellectual revolution after the Renaissance culminated in an intellectual movement called the Enlightenment (eighteenth century) which emphasised man's rationality. Scientific developments after the Renaissance and the Enlightenment gave to the world a faith in the inevitability of progress and the perfectibility of man and human institutions. Modern science brought about a new realism that called upon men to courageously and realistically face the actual problems of life in the world. This new outlook became the basis of a pragmatic outlook in educational thought. Until the end of the eighteenth century, however, the influence of science on education was primarily of a theoretical nature. By the middle of the nineteenth century its application to industry had completely revolutionised practical life and science began to find a place for itself even in elementary schools. The impact of science in all spheres of life is of profound importance because it forced education to change too. Science itself became the most potent force in shaping the conditions in the world that made mass popular education a necessity (Parker, 1970:111, 114-120; Mulhern, 1946:254-259, 270, 413-415; Van den Berg, 1977:18-21). Social, economic and political change accompanied the intellectual change after the Renaissance.

Political, social and economic changes after the Renaissance provide a secular basis for the development of universal education as a state function

Political change

In a previous paragraph it was pointed out that the Reformation destroyed the unity of the Catholic Church and thus created the need for a new educational authority. Both Luther and Calvin were in favour of state involvement in education and in Protestant countries, education was transferred to civil authorities in varying degrees.

During the Renaissance, nationalism gradually became a potent political force. The Protestant Reformation hastened the growth of nationalism in Europe because it destroyed the religious unity of Christendom. The political and religious changes after the Reformation accentuated the movement towards the cultural unity and exclusiveness of national groups. Not only did a variety of sects arise, but Christendom became divided into nations, each with its own traditions. Economic, political, cultural and other factors accentuated the differences between national states and undermined the universal consciousness of a united Christendom that prevailed as an ideal during the Middle Ages (Mulhern, 1946:243-245, 252, 406, 430; Van Heerden, 1988:161). Under the royal despots, however, the masses were still politically voiceless. This changed with the growth of democracy as a political ideology. Democracy also further undermined the church's control over life and education.

The modern democratising process started with the English Revolution of 1688, which established the principle that the king was the representative of the people, and not the king by divine right. The ideas of Locke (1632-1704) and Rousseau (1712-1778) were most influential in the development of modern democracy with its principles of freedom, self-government and

equality. The English Revolution (1688), the French Revolution (1789) and the American Revolution (1776) were also closely related in the development of democracy. Democracy with its destruction of the theory of the divine right of kings and all other forms of despotism, completed the reforms started during the Renaissance (Parker, 1970:130-133; Van Niekerk, 1992:62-66).

The Reformation supplied the religious motivation for the provision of mass education. Democracy, however, furnished a new basis for universal education. Democratic government is almost inconceivable without popular education and the moulders of democracy in Europe and America realised this. If the people were to participate in government, they could not remain ignorant. Note that nationalism and the rise of democracy were intimately related, especially during the eighteenth and nineteenth centuries. Even the rise of nationalism can be regarded a phase in the reappraisal of the common man and the democratic ideal (Mulhern, 1946:317-325; Brubacher, 1966:370-371; Van Niekerk, 1992:62-66).

Both nationalism and democracy as political forces exerted an influence on education. This is evident from educational developments in several countries. The growth of peoples into strong, prosperous unified nations directed by a patriotic enthusiasm for the welfare of the nation was an important factor in developing a rival for the purely ecclesiastical basis of life and education.

Prussia was the first country in which the plans for national improvement and development included the educational development of the people as the main factor. The combination of a powerful, benevolent monarchy,

aware of the welfare of all the people, tolerant of all religious groups and in touch with developments in modern science resulted in the first modern secular state school system which could serve as an example for other countries in Europe (Parker, 1970:125-129). Although the Prussian organisation of a centrally controlled teaching system began as early as the sixteenth century, significant reforms only took place during the reigns of Frederick William (1713-1740) and Frederick the Great (1740-1786). Frederick William introduced compulsory education for children between the ages of six and twelve in 1736, but this attempt was largely frustrated because of a lack of funds, parental opposition and administrative costs. In 1763 Frederick the Great promulgated his General School Regulations which required children to attend school between the ages of five and thirteen or fourteen or until they had demonstrated proficiency in religion, reading and writing and other knowledge contained in books approved by the school authorities of the state. Prussia therefore became the first nation to make universal education a reality (Verster et al., 1982:133-134; Monroe, 1933:730-731; Mulhern, 1946:406, 431-437).

In France the schools were the bulwarks of the existing social, political and ecclesiastical order before the French Revolution (1789). During the period before and immediately after 1789 there were many demands for a universal, free, compulsory and secular system of elementary education for moulding the citizens of a new social order. In spite of the Revolutionary ardour for universal state education, in practical terms nothing really substantial was achieved. However, during this era, France contributed a great deal in the field of theory to promote the ideal of a universal system of state education. Only in 1881 was primary education made free, and in 1882 it became compulsory for children between the

ages of six and thirteen (Barnard 1969; Mulhern, 1946:406-407, 441, 445; Verster et al., 1982:134-135; Monroe, 1933:731-733).

In England change was slow and gradual. In 1876 elementary education was made compulsory up to the age of ten, and in 1891 was made free in state-aided elementary schools. In 1899, school attendance was made compulsory up to the age of twelve (Mulhern, 1946:408, 453; Verster et al., 1982:135-137; Monroe, 1933:733-734).

Free, universal, compulsory, secular elementary education was the goal set and largely attained by European nations and America in the nineteenth century (Mulhern, 1946:430). The political forces of nationalism and democracy contributed significantly to the attainment of this ideal. Political change, however, is a reflection of social, economic and intellectual change. The intellectual revolution after the Renaissance has already been discussed. Social and economic changes after the Renaissance still have to be considered, bearing in mind that none of these changes after the Renaissance can be understood in isolation, for intellectual, political, social and economic issues are all intertwined.

Economic and social change

The medieval economy was a natural economy, and barter was the method used to exchange commodities. Increasing commerce from the late Middle Ages, however, demanded a money economy, international capitalism and banking operations that evolved during the fourteenth and fifteenth centuries. It was the commercial revolution that demolished the medieval economic and social structure. There were changes in the economic field

as well as in the social, political, religious and intellectual areas. Modern scientific inventions played a significant role in economic developments. Economic changes were hastened by inventions such as textile machines, pumps, magnifying glasses, gunpowder, the compass, glass bottles, watches, microscopes, telescopes, the steamboat and many more. The most significant invention was printing (1450), because it stimulated the intellectual and spiritual revolution which ushered in the modern world. It made communication possible on a large scale. The printing press gave wings to thought, thus popularising knowledge. This, of course, is of paramount importance in the rise of mass popular education (Mulhern, 1946:233-236; Parker, 1970:46-48; Van Heerden, 1988:161-163).

Medieval feudal society was divided into a rigid class structure. Out of the commercial revolution, however, arose a new class, the bourgeoisie or middle class, which could in time be distinguished clearly from the working masses who also formed a new social class. The nobility, which was the aristocracy on the strength of birth, formed the upper part of the social structure with the despotic monarch, who claimed to rule by divine right, at the top. With the changing economic conditions and the new intellectual climate, a social struggle emerged from this social stratification, which came under increasing criticism under the emerging new conditions (Mulhern, 1946:236-239; Van Heerden, 1988:162-163, 204-205). The revolt against the nobility and the subsequent abolition of the prevailing feudal system was a part of the move towards a new social order. The French Revolution was indeed, *inter alia*, a revolt against prevailing economic conditions. Greater concern for the less privileged was part of an increasing social emphasis brought into education. This was particularly necessary because of an economic phenomenon, the Industrial

Revolution, occurring from 1750 onwards.

The forces at work in the social environment of the eighteenth and nineteenth centuries brought about increasing socialisation in education. This tendency culminated in compulsory systems of national education which were established in Europe at different times during the nineteenth century. I have already referred to this. Philanthropic agencies, however, played an important early role in the socialisation of education. Philanthropic and religious agencies played a vital role in meeting the needs of the poor before governments became conscious of their obligation to them. In England, the Society for the Promotion of Christian Knowledge (founded in 1699), the Sunday School Movement (founded in 1780), the Monitorial system of instruction (founded in 1798) and the Infant School Movement (founded in 1816) fell into this category. The work of Pestalozzi (1746-1827), Fellenberg (1771-1844) and others in Europe, who tried to save the poor from the miseries created by the industrial and social change through a practical education, is well known. Pestalozzi was primarily a social reformer who believed that education is the remedy for the ills of society (Mulhern, 1946:395-403; Monroe, 1933:707-708, 722-727; Brubacher, 1966:368-369).

Developments from the Industrial Revolution to the present

The Industrial Revolution was an economic phenomenon occurring from 1750 onwards. Prior to this, commerce had dominated industry, but after the Industrial Revolution, industry dominated commerce. Because of this Revolution, the family disappeared as the unit of production. The Industrial Revolution started in England. After 1850 it spread through

Europe. America experienced its own industrial transformation even earlier than this. The application of science to industry as well as the evolution theory, which was one of the most influential intellectual phenomena of the nineteenth century, supported the idea of worldly progress which was propounded after Bacon. The Industrial Revolution (and the concomitant idea of worldly progress) was a key factor in the rise of mass popular education (Mulhern, 1946:325-326, 334).

The first influence of industrial change on education appears in the efforts of philanthropists to help workers overcome the problems that industrialism had created. The second educational influence of the Industrial Revolution appears in the concern of governments of nation states about the training of skilled workers in an effort to meet the demands of a competitive international commerce (Mulhern, 1946:404-405). Mass education had to provide trained manpower for the maintenance and further development of the complex industrial civilisation that evolved. The present systems of mass education, which began in the eighteenth century because of the key factors discussed in this article, are essential for both the maintenance of and meaningful participation in the sophisticated and complex societal structure that has evolved. It supplies the trained manpower essential for the continued development and advancement of industry and technology. Mass education is therefore inherently part of industrial civilisation.

Even while the Industrial Revolution necessitated the extension of formal schooling to all levels of the population, it also played an important role in the extension of informal education. In this regard one can think of the informal educational function of mass media like newspapers, magazines,

books, films, radio and television. Since these media serve an important function in an industrial civilisation, they became more generally available to ordinary people in the course of time after the Industrial Revolution.

The period from the end of the eighteenth century to the First World War was characterised by the evolvement of systems of free, compulsory elementary education, as has been indicated. The Industrial Revolution, in conjunction with the other key factors, led to these developments. Secondary education, however, remained the privilege of a minority. Further social, scientific and technological developments and economic growth after the First World War gave secondary education the same mass character as primary education in the developed countries of the world. Since then even developing countries have tried hard to catch up on the backlog in the provision of formal education to the masses in the belief that this will stimulate development and progress (Unesco, 1985:13-14; Berend, 1985:27-31; Coombs, 1985:92-95; Ulich, 1972:39; Brubacher, 1966:81; Toffler, 1981:44).

Relevance for education in Southern Africa in the twenty first century

A comprehensive understanding of contemporary systems of mass popular education, as I have indicated in the introduction, presupposes a historical analysis of the key factors involved in the rise of mass popular education. Many of our contemporary problems in education can also be better understood through such an analysis. Developmental disparities in the world and disparities in the provision of education can also be better understood on the basis of this analysis.

From the analysis it is clear that developments in the West contributed significantly towards the rise of the present systems of mass popular education. The religious, scientific, political, economical and social forces that shaped our modern world, also shaped the Western systems of formal education that evolved since the Renaissance. Ironically the initial religious basis provided for universal education by the Reformers has been surpassed in importance by the secular forces as key factors in the rise of mass popular education. Although it is difficult to determine the relative importance of each key factor *vis a vis* the other, the advent of modern science seems to be the most important factor in the rise of mass popular education. The scientific revolution ushered in the modern world and in the end humans used scientific knowledge to create a new industrial type of civilization with its altered political, economical and social institutions. The technological application of scientific knowledge since the Industrial Revolution created the practical conditions that necessitate mass popular education. One can indeed ask: how does this relate to educational conditions in Southern Africa at this point in time?

Present day developmental problems, which relate to Southern Africa as well, are the outcome of the unequal pattern of development which was caused by rapid technological and scientific developments in the West since the Renaissance. These problems are aggravated by the population explosion in the poorer, less developed parts of the world. However, due to the material wealth created by the Industrial Revolution, a general conception evolved that global progress and equality could be achieved and should be achieved by integrating the whole world into the industrial type of civilization. The application of this idea has led to the disintegration of the traditional social and cultural structure of many primal and

agricultural forms of civilization. Since the rise of modern systems of mass popular education is intricately associated with the advent of the so-called developed, industrial type of civilization, education also has a part in causing the destruction of traditional ways of existence.

Developing countries seem to regard education as a precondition to and a means of attaining development. To assist the developing countries a development industry and numerous aid agencies, inter alia in the field of education, were established. In fact, education is currently in the centre of a debate on developmental issues. Since education is a costly undertaking, and not the only determinant of development, many questions arise regarding the function of the school in developing countries. On the one hand there seems to be a justified concern over the uneven developmental pattern in the world and the possible increase of the gap between rich and poor. On the other hand there also seems to be some cinicism, possibly justified, whether the so-called developing countries are able to integrate meaningfully into an industrial type of civilization. The Western developmental model does not seem to suit Africa, for instance. However, the issue of development is one of our major dilemmas in an interdependent, globalistic order with its sharp contrast between the developed (wealthy) and developing (poor) parts. There seem to be no simplistic solutions to this problem. At this stage in human history it seems to be unavoidable to accept the unequal developmental patterns in the world as a given. It also seems to be sensible to accept the variety in our world with regard to forms of civilization, and not to interpret this in a negative way, as so often happens from a Western perspective.

Conclusion

In conclusion one can ask some questions, to which the answers are not straightforward, with regard to the issue of development:

Is it imperative for Southern Africa to become integrated into the so-called developed form of civilization? If so, what are the implications for education?

Does Southern Africa have the economic base, infrastructure and developed manpower to sustain accelerated development? What are the implications for educational planning?

Is the Western model of development and education inherited from our colonial past suited to conditions in Southern Africa? If not, what are the implications for educational planning, management and the curriculum?

How can educational provision in all its aspects be matched with Southern African developmental needs?

How can educational costs be contained in a meaningful manner taking Southern Africa's developmental needs and our capacity for development into account?

What is the function of development aid within the Southern African context?

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How can Southern Africa build its own capacity for research into a suitable line of development? How can Africans who have studied overseas contribute meaningfully in this respect?

Does Southern Africa need an intellectually schooled population? What form of schooling is most suited to our needs?

Do we need to develop? Why, or why not? Is it meaningful at all? Is it possible to cut ourselves off from the rest of the world and rather stick to a traditional way of life? Would this be more meaningful?

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